

AIRCRAFT CRASH - ECUADOR

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|------------------|--|
| DTG | 17 FEB 81, Approx. 0700 Local |
| TYPE | UH1H, 1973 Model |
| TAIL NUMBER | 73 - 21711 |
| CALLSIGN | ARMY 711 |
| CREW | SGFOIA3 <div data-bbox="518 640 878 756" style="border: 1px solid black; display: inline-block; width: 222px; height: 56px; vertical-align: middle;"></div> 193rd INF BDE 193rd INF BDE SVC CO 7th SFG |
| APPROX. LOCATION | 0422 South 7911 West (Was on flight between LOJA, Ecuador and VALOR, Peru) |

PO Box 482, Fort Worth, Texas 76101

Telephone: (817) 280-2011

PRESIDENT:

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L. M. ('Jack') Horner (Marketing & Programmes)

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Reflecting the fact that Bell Helicopter Company was

the largest operating division of Textron Inc, the com-

pany's name was changed to Bell Helicopter Textron on 1

January 1976.

Production at Fort Worth is concerned primarily with

military and commercial single- and twin-engine versions

of the turbine-powered UH-1 Iroquois, the AH-1

HueyCobra armed helicopter developed from the UH-1,

and military and commercial versions of the Model 206

JetRanger. The Bell 47, in continuous production in the

USA for more than 25 years, after receiving the first

helicopter Approved Type Certificate from the CAA on 8

March 1946, is no longer in production by Bell.

Versions of the UH-1 are built under licence by, Agusta

in Italy and Fuji in Japan (which see). Bell also has licence

agreements with the Republic of China, covering co-

production of Model 205 general-purpose helicopters,

and with the government of Australia, covering the pro-

duction of Model 206B-1. Kiowa for the Australian

Army. Prime contractor in Australia is the Common-

wealth Aircraft Corporation (which see).

Since 1958, when Bell's Model XV-3 tilt-rotor research

aircraft achieved the first full in-flight conversion by a

machine of this configuration, Bell engineers have con-

tinued research in this field and have completed recent US

Army/USAF/NASA contracts to investigate proprotor

and folding proprotor technology. The contracts included

manufacture and wind tunnel testing of examples of both

types of rotor.

Towards the end of 1972, Bell and one other company

received contracts from NASA and the US Army for the

design of a tilt-rotor VTOL research vehicle. In May 1973

Bell announced that its Model 301 proposal had been

selected for development. Two examples were ordered,

with the US Army designation XV-15.

During 1972 Bell achieved a major breakthrough in the

elimination of vibration in helicopters with what is known

as the nodalisation concept. flight test data and analytical

results suggesting that 70 to 90 per cent vibration isolation

was practicable. This concept is based on the scientific fact

that any beam subjected to vertical vibratory forces, such

as those induced by a rotor, will develop flexing to produce

a wave form. Points of no relative motion, called the nodal

relative motion, called the nodal
rotor-induced vibration. Flight tests of a Model 206 Jet-
Ranger with its fuselage suspended from a nodalised beam
were so convincing that Bell decided to utilise this
'Noda-Matic' technique on new production helicopters,
beginning with the Model 206L LongRanger and Model
214.

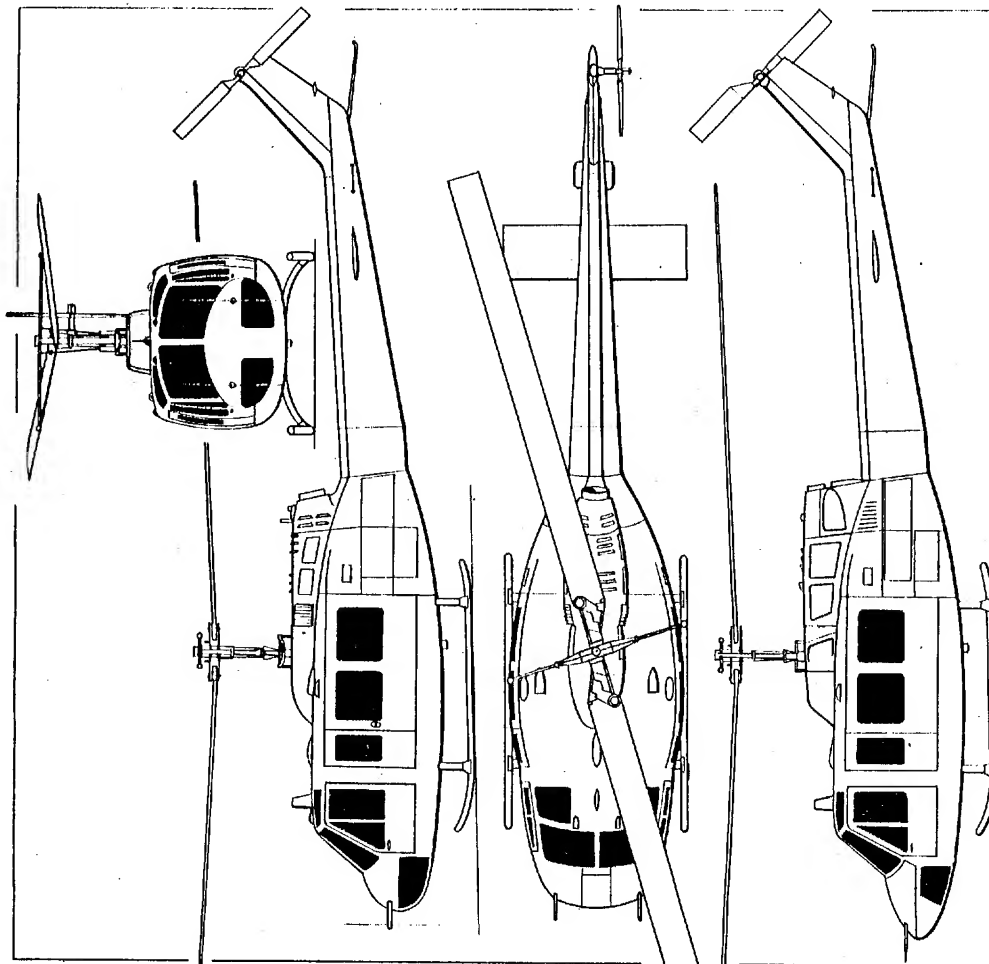
Bell Helicopter Textron is responsible for management
of Bell Operations Corporation, newly formed to co-
operate with the government of Iran in establishing a
helicopter manufacturing industry in that country. Further
details of this programme can be found under the entry for
Iran.

Approximately 9,000 people were employed by Bell at
the beginning of 1977. The company has produced more
than 22,000 helicopters.

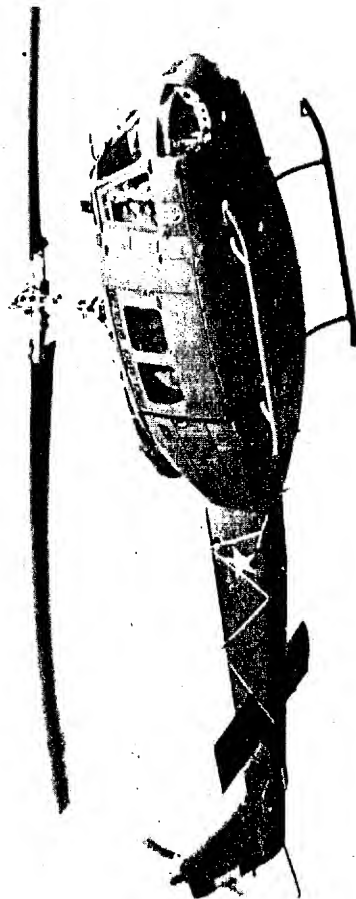
canadian military design on. C-119H is a

Although basically similar to the earlier Model 204 (see
1971-72 *Jane's*), the Model 205 introduced a longer fusel-
age, increased cabin space to accommodate a much larger
number of passengers, and other changes. The following
military versions have been built:

UH-1D. This US Army version of the Model 205 Iro-
quois has an 820 kW (1,100 shp) Lycoming T53-L-11
turboshaft, 14.63 m (48 ft) rotor, normal fuel capacity of
832 litres (220 US gallons) and overload capacity of 1,968
litres (520 US gallons). Relocation of the fuel cells
increases cabin space to 6.23 m³ (220 cu ft), providing
sufficient room for a pilot and twelve troops, or six liters
and a medical attendant, or 1,815 kg (4,000 lb) of freight.
First YUH-1D flew on 16 August 1961 and delivery to US



Bell UH-1H Iroquois, with additional side view of UH-1N (bottom) (Pilot Press)



Bell UH-1H Iroquois of the Brazilian Air Force (Ronaldo S. Olive)

field units began on 9 August 1963. The UH-1D was dispersed in production for the US Army by the UH-1H, but 352 UH-1Ds were built subsequently under license in Germany for the German Army and Air Force. The contract was Dornier.

UH-1H. Following replacement of the original T53-L-11 turboshaft by the 1,044 kW (1,400 shp) T53-L-13, the Model 205A-1 was produced by Bell for the US Army as the designated UH-1H. Deliveries of an initial order of 19 aircraft for the US Army began in September 1966. Subsequent orders included 300 more for the US Army in January 1971, and nine for the RNZAF. A total of 352 for a total of 560 UH-1Hs were placed in service. A contract for 54 more UH-1Hs, designated UH-1H, was awarded in September 1974. The UH-1H represents the final order for the US Army, and deliveries were completed in 1976. Production of the UH-1H continued in 1977 to satisfy export orders.

Under a licensing agreement concluded in 1969, the Republic of China produced 118 UH-1Hs for the Republic of China Army, with much of the manufacturing process being carried out at Taichung.

118. Similar to UH-1H, for Mobile Command, Indian Armed Forces. First of ten delivered on 6 March 1971. It was announced on 4 November 1970 that a contract had been received from the USAF for 30 HH-1H (general purpose) similar to the UH-1H for use as local rescue helicopters. Deliveries were completed during 1971.

Model 205A-1 is described separately. The following details refer specifically to the military H:

Single-rotor general-purpose helicopter.

SYSTEM: Two-blade all-metal semi-rigid main rotor with interchangeable blades, built up of extruded aluminum spars and laminates. Stabilising bar above at right angles to main rotor blades. Underlashing of hub. Two-blade all-metal tail rotor of conventional construction. Blades do not fold.

DRIVE: Main drive to both main and tail rotors. Transmission rating 820 kW (1,100 shp). Main rotor 294-32.5.

AGE: Conventional all-metal semi-monocoque structure.

FEATURE: Small synchronised elevator on rear fuselage connected to the cyclic control to increase allowable CG travel.

GEAR: Tubular skid type. Lock-on ground handwheels and inflated nylon float-bags available.

PLANT: One 1,044 kW (1,400 shp) Lycoming L-13 turboshaft mounted aft of the transmission of the fuselage and enclosed in cowling. Five connected rubber fuel cells, total capacity 832 litres (215 US gallons). Overload fuel capacity of 520 US gallons. Fuel is obtained by installation of kit comprising two (150 US gallon) internal auxiliary fuel tanks connected with the basic fuel system.

VOCAION: Cabin space of 6.23 m³ (220 cu ft) provides sufficient room for pilot and 11-14 troops, or six and a medical attendant, or 1,759 kg (3,880 lb) of crew doors open forward and are retractable.

Max level and cruising speed 110 knots (204 km/h; 127 mph)
Econ cruising speed at 1,735 m (5,700 ft) 110 knots (204 km/h; 127 mph)
Max rate of climb at S/L 488 m (1,600 ft)/min 3,840 m (12,600 ft)
Service ceiling 4,145 m (13,600 ft)
Hovering ceiling in ground effect 4,145 m (13,600 ft)
Hovering ceiling out of ground effect 335 m (1,100 ft)
Range with max fuel, no allowances, no reserves, at S/L 276 nm (511 km; 318 miles)

BELL MODEL 205A-1

The Model 205A-1 is a fifteen-seat commercial utility helicopter developed from the UH-1H, with 1,044 kW (1,400 shp) Lycoming T5313A turboshaft, derated to 932 kW (1,250 shp) for take-off. It is designed for rapid conversion for alternative air freight, flying crane, ambulance, rescue and executive roles. Total cargo capacity is 7.02 m³ (248 cu ft) including baggage space in tailboom, with 2-34 m (7 ft 8 in) by 1.24 m (4 ft 1 in) door openings on each side of the cabin to facilitate loading of bulky freight. External load capacity in flying crane role is 2,268 kg (5,000 lb). The ambulance version can accommodate six litter patients and one or two medical attendants.

Normal fuel capacity is 814 litres (215 US gallons); optional capacity is 1,495 litres (395 US gallons).

The description of the Bell UH-1H applies also to the Model 205A-1, except for the following details:

TYPE: Fifteen-seat commercial utility helicopter.

ELECTRONICS AND EQUIPMENT: Standard equipment includes vertical gyro system, 5 in gyro attitude indicator, gyro compass, master caution panel, bleed air heater, force trim hydraulic boost controls, soundproof headliner, dual windshield wipers, cabin and engine fire

WEIGHTS:

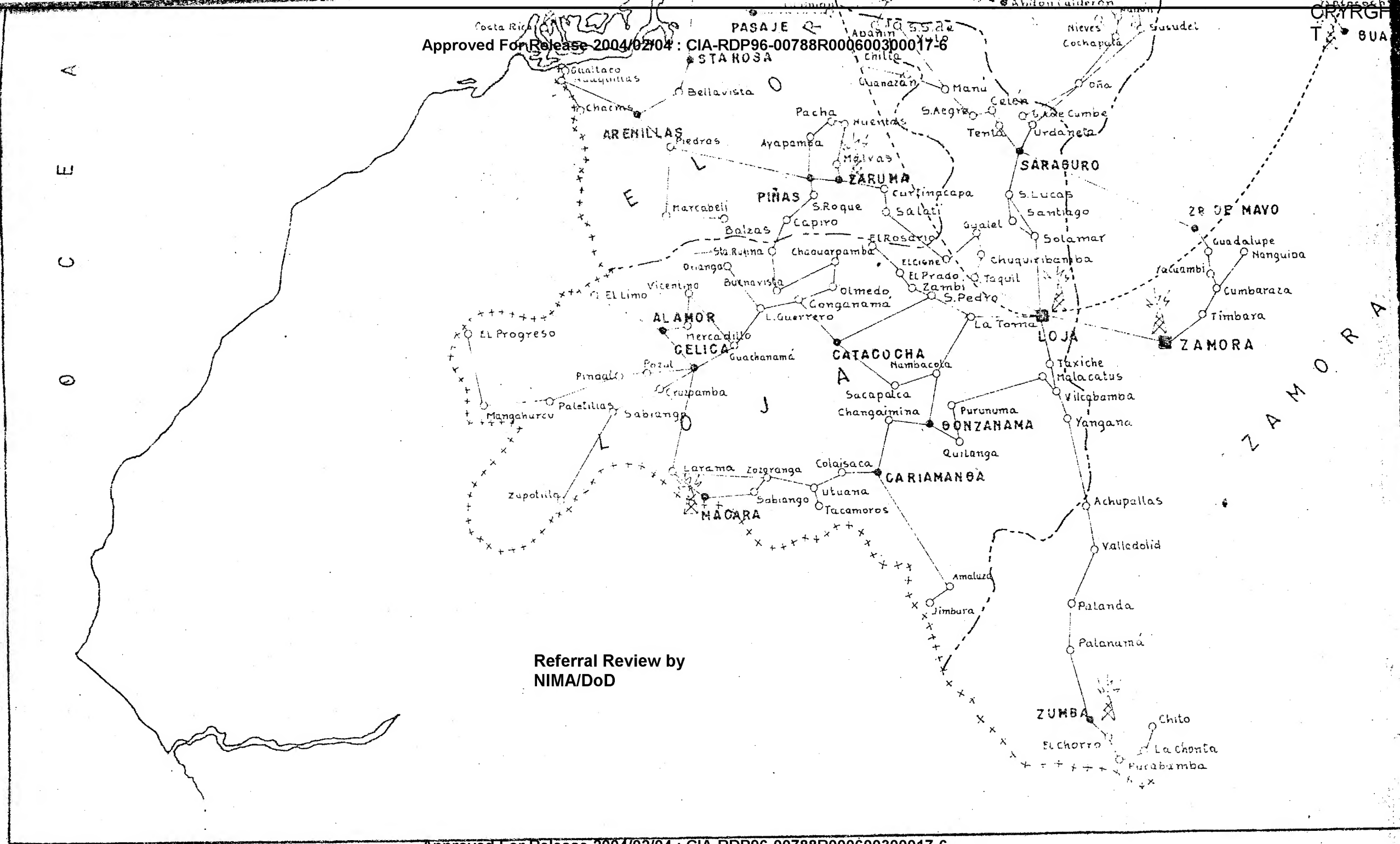
Weight empty, equipped 2,370 kg (5,226 lb)
Normal T-O weight 4,309 kg (9,500 lb)
Max T-O weight, external load 4,763 kg (10,500 lb)
PERFORMANCE (at normal T-O weight):
Max level speed from S/L to 915 m (3,000 ft) 110 knots (204 km/h; 127 mph)
Max cruising speed at S/L 110 knots (204 km/h; 127 mph)
Max cruising speed at 2,440 m (8,000 ft) 96 knots (179 km/h; 111 mph)
Max rate of climb at S/L 512 m (1,680 ft)/min
Max vertical rate of climb at S/L 259 m (850 ft)/min
Service ceiling 4,480 m (14,700 ft)
Hovering ceiling in ground effect 3,170 m (10,400 ft)
Hovering ceiling out of ground effect 1,830 m (6,000 ft)
Range at S/L, at max cruising speed 270 nm (500 km; 311 miles)
Range at 2,440 m (8,000 ft) at max cruising speed, no reserves 298 nm (553 km; 344 miles)

BELL MODEL 206B JETRANGER II

In the Spring of 1971, Bell began delivery of the Model 206B JetRanger II, which subsequently replaced in production the lower-powered Model 206A JetRanger, of which 660 were delivered. Military 206B-1 Kiowas assembled in Australia are to Model 206B standard.


Power plant of the Model 206B JetRanger II is the Allison 250-C20 turboshaft, which Bell was able to install with minimal modification of the original airframe to meet requests for higher performance under hot-day/high-altitude conditions. This enabled Bell to offer modification kits to convert Model 206As to JetRanger II standard, simultaneously with production of new aircraft.

The uprated power plant increases power-limited air-



C H I N C H I P E

LEYENDA

- PARROQUIAS O CASERIOS
- CABECERAS CANTONALES
- CAPITAL DE PROVINCIA
-  CAPITAL DE LA REPUBLICA
- ESTACIONES DE RADIO
- LIMITE PROVINCIAL
- ++++++ LIMITE INTERNACIONAL
- SISTEMA DE COMUNICACIONES HF-BLI
- SISTEMA VHF

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| | E.R.T.T.E. | | |
| IX-1963 | RED DE LAS COMUNICACIONES TELEGRAFICAS TELEFONICAS Y DE RADIO DEL ECUADOR | | |
| ESC:1:1000000 | | | |
| <u>REVISIONES</u> | | | |
| | Leonidas Carrera DIBUJADO POR | Alfonso Zabala DIRECTOR TECNICO | Capitan de Fragata Gabriel Jarrin DIRECTOR GENERAL |

Bell's 214ST:

the powerful new super transport getting ready to join the Bell Air Mobile team

A new, super transport helicopter, with more horsepower, increased troop carrying capacity, and able to deliver heavier loads faster and higher than ever... even on the hottest days... Bell's 214ST twin adds a whole new operational capability to military forces.

Now in test, the 19-place 214ST is being hailed as the advanced manpower, ordnance and logistics mover needed for the 1980s.

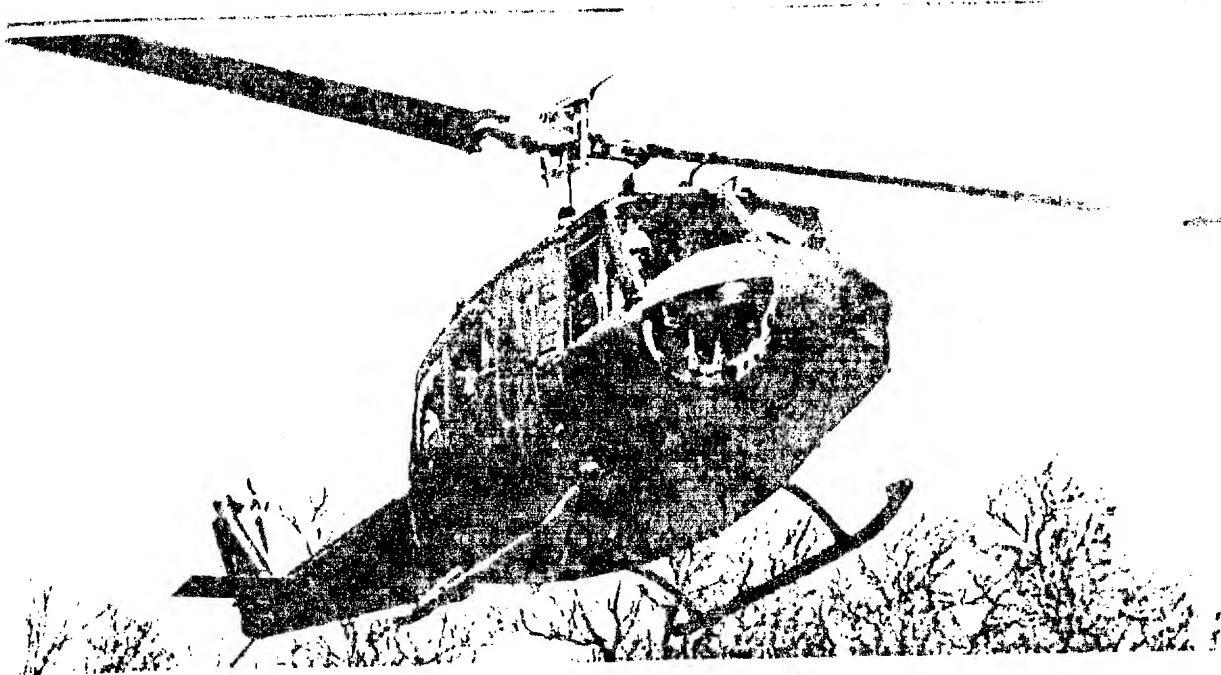
Joined with the 206 for reconnaissance and command and control, the AH-1 Cobra for fire support, and the UH-1H and 214B medium transports, this newest, most powerful Bell super transport presents an unequalled air mobile team for total force deployment in any weather, in any environment.



peacekeepers
the world over
depend on **Bell**
HELICOPTER

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UH-1H (1973) TAIL* 73-21711

17 FEB 81 @ 0700 LOCAL TIME

CREW:



SGFOIA3

First town to be visited:

1. Las Aradas

04 degrees, 21 minutes, 45 seconds South

79 degrees, 23 minutes, 50 seconds West

Closer to the center of greatest interest:

2. La Laja

04 degrees, 26 minutes, 05 seconds South (14)

79 degrees 27 minutes, 30 seconds West

3. The four corners of the area to be searched:

✓ 1. 04 degrees, 27 minutes, 30 seconds South (2)
79 degrees, 26 minutes, 25 seconds West

✓ 2. 04 degrees, 27 minutes, 30 seconds South (3)
79 degrees, 24 minutes, 50 seconds West

✓ 3. 04 degrees, 30 minutes, 00 seconds South
79 degrees, 24 minutes, 50 seconds West

✓ 4. 04 degrees, 30 minutes, 00 seconds South
79 degrees, 26 minutes, 25 seconds West

4. Center of the area of greatest interest

1. 04 degrees, 28 minutes, 30 seconds South (1)
79 degrees, 25 minutes, 40 seconds West